

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. William W. Schaal on 12/04/09.

2. The application has been amended as follows:

#### **IN THE CLAIMS:**

Claim 5, line 10, the limitation "exceeds the threshold." has been replaced by --- exceeds the threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped. ---.

Claim 6, line 10, the limitation "exceeds the threshold." has been replaced by --- exceeds the threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of

Art Unit: 2472

errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped. ---.

Claim 8, line 10, the limitation “exceeds the threshold.” has been replaced by --- exceeds the threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped. ---.

Claim 10, line 13, the limitation “exceeds a threshold.” has been replaced by --- exceeds a threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped. ---.

Claim 20, line 4, the limitation “in the communications network” has been replaced by --- in the communications network;

a processing unit coupled to the plurality of I/O ports, the processing unit including a memory and a processor; ---.

Claim 20, line 8, the limitation “queue assignment logic to assign” has been replaced by --- queue assignment logic implemented within the memory and executed by the processor to assign ---.

Claim 20, line 11, the limitation “one or more agents to monitor” has been replaced by --- one or more applets implemented within the memory for execution in order to monitor ---.

Claim 20, line 15, the limitation “exceeds a threshold.” has been replaced by --- exceeds a threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped. ---.

Claim 22, line 1, the limitation “of claim 21” has been replaced by --- of claim 20 - --.

Claim 22, line 3, the limitation “implements a virtual machine, and wherein the program code received via the data communications interface includes a sequence of instructions that is executed by the virtual machine to implement one or more agents.” has been replaced by --- implements a virtual machine that interprets the one or more applets into instructions executable by the processor. ---.

Claim 23, line 9, the limitation “exceeds the threshold.” has been replaced by ---

Art Unit: 2472

exceeds the threshold, the error information includes at least one of (i) a number of errors associated with the one of more types of traffic, and (ii) a number of packets from each types of traffic that are dropped. ---.

Claims 21 and 26 have been cancelled.

***Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowance:

Regarding claims 5, 6 and 8 the prior art fails to teach a combination of the steps of:

automatically changing assignment of at least one type of packet traffic of the one or more types of packet traffic from a queue having a first priority to a queue having a second priority if the bandwidth consumption computed based on an evaluation of traffic statistics substantially in real-time exceeds the threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped, in the specific combination as recited in the claims.

Regarding claim 10, the prior art fails to teach a combination of the steps of:

one or more agents to monitor bandwidth consumption by packets associated with a first packet type of the plurality of packet types and to automatically change assignment of packets associated with the first packet type from the first queue to the

Art Unit: 2472

second queue if bandwidth consumption of packets associated with the first packet type and computed based on an evaluation of traffic statistics substantially in real-time exceeds the threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped, in the specific combination as recited in the claim.

Regarding claim 20, the prior art fails to teach a combination of the steps of:

one or more applets implemented within the memory for execution in order to monitor bandwidth consumption by packets associated with a first packet type of the plurality of packet types and to automatically change assignment of packets associated with the first packet type from the first queue to the second queue if bandwidth consumption of packets associated with the first packet type and computed based on an evaluation of traffic statistics substantially in real-time exceeds a threshold, the traffic statistics include at least one of (i) a number of packets destined for particular egress ports, (ii) a number of packets destined for particular MAC addresses, (iii) a number of packets destined for a particular virtual local area network, (iv) a number of packets having a particular IP protocol, (v) a number of errors associated with different classes of traffic, and (vi) a number of packets from each class of traffic that are dropped, in the specific combination as recited in the claim.

Regarding claim 23, the prior art fails to teach a combination of the steps of:

automatically changing assignment of at least one type of packet traffic of the one or more types of packet traffic from a queue having a first priority to a queue having a second priority if the error rate computed based on an evaluation of error information substantially in real-time exceeds the threshold, the error information includes at least one of (i) a number of errors associated with the one of more types of traffic, and (ii) a number of packets from each types of traffic that are dropped, in the specific combination as recited in the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2472

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D. N./  
Examiner, Art Unit 2472

/William Trost/  
Supervisory Patent Examiner, Art Unit 2472